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RAW SEQUENCE LISTING DATE: 03/20/2002 PATENT APPLICATION: US/10/090,183 TIME: 11:34:49

Input Set : A:\TSRI8290SEQ.TXT

Output Set: N:\CRF3\03202002\J090183.raw

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4 <110> APPLICANT: The Scripps Reasearch Institute
              Ralph A. Reisfeld
              Andrew G. Niethammer
      6
              Rong Xiang
      7
      9 <120> TITLE OF INVENTION: DNA VACCINE AGAINST PROLIFERATING
              ENDOTHELIAL CELLS AND METHODS OF USE THEREOF
     13 <130> FILE REFERENCE: TSRI-829.0
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/090,183
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     43 gaaataaaat ggtataaaaa tggaataccc cttgagtcca atcacacaat taaagcgggg 1140
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Input Set : A:\TSRI8290SEQ.TXT

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Input Set : A:\TSRI8290SEQ.TXT

103 20 25 30	
	ha Mha
104 Arg Leu Ser Ile Gln Lys Asp Ile Leu Thr Ile Lys Ala Asn T 105 35 40 45	HT THE
	D
106 Leu Gln Ile Thr Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu T 107 50 55 60	th bro
77	
108 Asn Asn Gln Ser Gly Ser Glu Gln Arg Val Glu Val Thr Glu (
109 65 70 75	80
110 Asp Gly Leu Phe Cys Lys Thr Leu Thr Ile Pro Lys Val Ile (
	5
112 Asp Thr Gly Ala Tyr Lys Cys Phe Tyr Arg Glu Thr Asp Leu A	ıa ser
113 100 105 110	1 - 0
114 Val Ile Tyr Val Tyr Val Gln Asp Tyr Arg Ser Pro Phe Ile A	la Ser
115 115 120 125	T
116 Val Ser Asp Gln His Gly Val Val Tyr Ile Thr Glu Asn Lys A	sn ьуs
117 130 135 140	-1 Co
118 Thr Val Val Ile Pro Cys Leu Gly Ser Ile Ser Asn Leu Asn V	
119 145 150 155	160
120 Leu Cys Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly A	
	75
122 Ile Ser Trp Asp Ser Lys Lys Gly Phe Thr Ile Pro Ser Tyr N 123 180 185 190	ac tre
	1 Com
124 Ser Tyr Ala Gly Met Val Phe Cys Glu Ala Lys Ile Asn Asp G 125 195 200 205	iu ser
	1 a
126 Tyr Gln Ser Ile Met Tyr Ile Val Val Val Gly Tyr Arg I 127 210 215 220	re Tyr
127 210 215 220 128 Asp Val Val Leu Ser Pro Ser His Gly Ile Glu Leu Ser Val	1 (1.)
129 225 230 235	19 G1u 240
130 Lys Leu Val Leu Asn Cys Thr Ala Arg Thr Glu Leu Asn Val G	
	55 .
132 Asp Phe Asn Trp Glu Tyr Pro Ser Ser Lys His Gln His Lys I	
133 260 265 270	ys Lea
134 Val Asn Arg Asp Leu Lys Thr Gln Ser Gly Ser Glu Met Lys I	re Dha
135 275 280 285	y5 File
136 Leu Ser Thr Leu Thr Ile Asp Gly Val Thr Arg Ser Asp Gln G	ly Len
137 290 295 300	ry neu
138 Tyr Thr Cys Ala Ala Ser Ser Gly Leu Met Thr Lys Lys Asn S	er Thr
139 305 310 315	320
140 Phe Val Arg Val His Glu Lys Pro Phe Val Ala Phe Gly Ser G	
	35
142 Glu Ser Leu Val Glu Ala Thr Val Gly Glu Arg Val Arg Ile F	
143 340 345 350	.0 1114
144 Lys Tyr Leu Gly Tyr Pro Pro Pro Glu Ile Lys Trp Tyr Lys A	an Glv
145 355 360 365) <u></u>
146 Ile Pro Leu Glu Ser Asn His Thr Ile Lys Ala Gly His Val I	eu Thr
147 370 375 380	
148 Ile Met Glu Val Ser Glu Arg Asp Thr Gly Asn Tyr Thr Val I	le Leu
149 385 390 395	400
150 Thr Asn Pro Ile Ser Lys Glu Lys Gln Ser His Val Val Ser L	
	1.5

Input Set : A:\TSRI8290SEQ.TXT

152 Val																	
154		Val	Tyr	Val		Pro	Gln	Ile	Gly		Lys	Ser	Leu	Ile		Pro	Val
156	154	Asp	Ser			Tyr	Gly	Thr			Thr	Leu	Thr		Thr	Val	Tyr
157											_	_	_		_	~ 3	-1
150	157		450					455					460				
160			Cys	Ala	Asn	Glu		Ser	Gln	Ala	Val	Ser 475	Val	Thr	Asn	Pro	Tyr 480
161			Cvc	Glu	C lui	Trn		Sor	Va1	Glu	Δen		Gln	Glv	Glv	Asn	Lvs
164	161					485					490					495	
165	163				500					505					510		
165	164	Thr	Val	Ser	Thr	Leu	Val	Ile	Gln	Ala	Ala	Asn	Val	Ser	Ala	Leu	Tyr
166								•									
168		Lvs	Cvs		Ala	Va1	Asn	Lvs		Glv	Ara	Glv	Glu	Ara	Val	Ile	Ser
169	167	_	530					535					540				
170	168	Phe	His	Val	Thr	Arg		Pro	GIu	TTE	Thr		GIn	Pro	Asp	мес	
171 Thr Phe Glu Asn Leu Thr Try Tyr Lyr Eu Gly Pro Leu Pro Leu Pro 173 Tyr Lyr Lyr Lyr Pro 595 Tyr 174 11e His Val Gly Glu Leu Pro Hr Pro Val Cyrs Lyr Asn Leu Asp Thr Met Glu Leu Asp Thr Met Glu Leu Asp Arg Leu Asp Arg Leu Asp Arg Lyr Thr Lyr Arg Thr Arg Arg Lyr Thr Lyr Arg Arg Arg Lyr Thr Lyr Arg Arg Arg Lyr Arg																	
The transform The transfor	170	Pro	Thr	Glu	Gln	Glu	Ser	Val	Ser	Leu	\mathtt{Trp}	Cys	Thr	Ala	Asp	Arg	Ser
173	171					565					570					575	
173	172	Thr	Phe	Glu	Asn	Leu	Thr	Trp	Tyr	Lys	Leu	Gly	Pro	Gln	Pro	Leu	Pro
174 11e His Val Gly Glu Leu Pro Thr Pro Val Cys Lys Asn Leu Asp Thr 176 G05 Leu Ser Thr 605 Leu G05 Leu G05 Leu G05 Leu G05 Leu Asp Ala Met G10 Leu Lys Asp Ala Ser Leu G10 Cu Jasp Tyr G10 Leu Asp Arg Leu G10 Asp Tyr G40 Asp G10 Asp Arg Leu G10 Asp Tyr G40 Asp G10 Asp Arg Leu G10 Asp Leu Leu Asp Arg Arg Ilu <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								_	_								
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176 Leu Trp Lys Leu Asn Ala Thr Met Phe Ser Asn Ser Thr Asn Asp Ile 178 Leu Ile Met Glu Leu Lys Asn Ala Ser Leu Glu Asp Tyr 179 625 """"""""""""""""""""""""""""""""""""		110	1110		011	O_Lu	Leu	110		2 _ 0		-1-	-1-				
177 610		T OU	Птп		LOU	λαη	λla	Thr		Dho	Sor	Δen	Sar		Δsn	Asn	Tle
178 Leu Ile Met Glu Leu Lys Asn Ala Ser Leu Glu Asp Tyr 179 625 625 630 7 5 635 7 640 180 Val Cys Leu Ala Glu Asp Arg Lys Thr Lys Arg His Cys Val Val 181 7 Glu Asp Arg Lu Ala Pro Fro 650 7 655 655 182 Arg Glu Leu Thr Val Leu Glu Arg Ala Pro Thr Ala Pro Fro 665 7 <t< td=""><td></td><td>Leu</td><td>_</td><td>гуs</td><td>Leu</td><td>ASII</td><td>АТа</td><td></td><td>Mec</td><td>FIIE</td><td>Ser</td><td>ASII</td><td></td><td>T 11T</td><td>ASII</td><td>nsp</td><td>110</td></t<>		Leu	_	гуs	Leu	ASII	АТа		Mec	FIIE	Ser	ASII		T 11T	ASII	nsp	110
179 625 5 530 5 5 640 640 180 741 181 181 181 181 181 181 181 181 181 181 182 182 182 183 181 181 181 181 182 182 182 182 182 182 182 182 182 182 182 182 183 182 <td></td> <td>_</td> <td></td> <td></td> <td>- 1</td> <td></td> <td>.</td> <td></td> <td></td> <td>a</td> <td>T</td> <td>01 =</td> <td>-</td> <td>C1 ~</td> <td>C1</td> <td>7.00</td> <td>m</td>		_			- 1		.			a	T	01 =	-	C1 ~	C1	7.00	m
180 Val Cys Leu Ala Gln Asp Arg Lys Thr Lys Lys Arg His Cys Val Val 181 645 645 645 660 665 665 665 665 665 665 665 665 670 484 Asp Gln Leu Glu Arg Val Ala Pro Thr Gly Asp Asp Thr Gly Asp Asp Gly Asp A			тте	мет	GIU	Leu		ASII	Ald	ser	ьeu		ASP	GIII	GTA	ASP	
181					_	_			_		_		_		~	1	
182 Arg Gln Leu Thr Val Leu Glu Arg Val Ala Pro Thr Ile Thr Gly Asn 184 Leu Glu Asn Gln Thr Thr Ser Ile Gly Glu Ser Ile Glu Val Ser Cys 185 675 675 680 680 680 685 685 685 186 Thr Ala Ser Gly Asn Pro Pro Pro Glu Ser Ile Gly Met Trp Phe Lys Asp Asn Asn 187 690 695 695 700 700 700 700 700 700 715 700 720 720 716 715 720 720 720 715 720 720 735 735 735 735 735 735 735 735 735 735 735 735 736 730 720 750 750 7		Val	Cys	Leu	Ala		Asp	Arg	Lys	Thr		Lys	Arg	Hls	Cys		vaı
183																	
184 Leu Glu Asn Gln Thr Thr Ser Ile Glu Ser Ile Glu Val Ser Cys 185 675 675 680 680 685 685 685 186 Thr Ala Ser Gly Asn Pro Pro Pro Gln Ile Met Trp Phe Lys Asp Asp Asn 187 690 690 695 700 700 700 700 700 700 700 700 720 720 720 715 720 720 720 720 720 720 720 720 720 720 720 720 730 720 735 735 735 735 735 735 730 720 735 735 735 735 735 735 735 745 745 740 750 750 750 750 750 750 750 750 765 765 765 765 765 7	182	Arg	Gln	Leu	Thr	Val	Leu	Glu	Arg	Val	Ala	Pro	Thr	Ile	Thr	Gly	Asn
185 675 687 680 680 685 685 685 686 6																	
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187 690	185			675					680					685			
187 690	186	Thr	Ala	Ser	Gly	Asn	Pro	Pro	Pro	Gln	Ile	Met	Trp	Phe	Lys	Asp	Asn
189 705	187		690					695					700				
189 705	188	Glu	Thr	Leu	Val	Glu	Asp	Ser	Gly	Ile	Val	Leu	Lys	Asp	Gly	Asn	Arg
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192 Cys Gln Ala Cys Ser Val Leu Gly Cys Ala Lys Val Glu Ala Phe Phe 193			204			725	9		5	-1-	730			1			
193		Cvc															Phe
194 Ile Ile Glu Gly Ala Gln Glu Lys Thr Asn Leu Glu Ile Ile Ile Leu 195 755 760 765 196 Val Gly Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Ile 197 770 775 775 780 198 Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Gly Glu Leu Lys Thr Gly 199 785 790 790 795 800		Cys	GIII	AIG		DCI	Vai	БСи	011		1114	D 10	,	014			
195 755 760 765 196 Val Gly Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Leu Val Ile 198 197 770 775 775 780 780 Thr Gly 198 Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Gly Gly Glu Leu Lys Thr Gly 619 <td< td=""><td></td><td>т1.</td><td>т1.</td><td>C1</td><td></td><td>7 l a</td><td>Cln</td><td>C111</td><td>Two</td><td></td><td>λcn</td><td>Lou</td><td>Clu</td><td>T10</td><td></td><td>т1Б</td><td>T.011</td></td<>		т1.	т1.	C1		7 l a	Cln	C111	Two		λcn	Lou	Clu	T10		т1Б	T.011
196 Val Gly Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Ile 197 197 770 775 780 198 Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Glu Leu Lys Thr Gly 199 785 790 795 800		TTG	ттб		σтλ	нта	GTII	GIU		1 11T	UDII	ьeu	GIU		116	110	LCu
197 770 775 780 198 Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Gly Glu Leu Lys Thr Gly 199 785 790 795 800		17- 1	01 -		a 7 -	17c 1	T1 -	7 1 -		nh-	Dh.c	m	T 011		T 011	Val	T10
198 Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Gly Glu Leu Lys Thr Gly 199 785 790 795 800		vaı	_	rnr	ΑΙα	vaı	тте		мет	rne	rne	ттр		ьeu	ьец	val	TTE
199 785 790 795 800					_				_					_	_		a 1
155 705			Leu	Arg	Thr	Val		Arg	Ala	Asn	GLY		GLu	Leu	Lys	Thr	
200 Tyr Leu Ser Ile Val Met Asp Pro Asp Glu Leu Pro Leu Asp Glu His																	
	200	Tyr	Leu	Ser	Ile	Val	Met	Asp	Pro	Asp	Glu	Leu	Pro	Leu	Asp	GLu	His

Input Set : A:\TSRI8290SEQ.TXT

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213		_	_	900	_	_			905				_	910		
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215		_	915	_	_	~ 1	_,	920	_	_	_	m.l	925	a 1	- 1	_
	Arg		гĀг	Arg	Asn	GIU		vaı	Pro	туr	ьуs		ьуs	GIY	Ата	Arg
217		930	01	C1	T	7	935	17.0 1	~1	21-	T1.	940	1701	7 ~~	T 0	T
	Phe 945	Arg	GIU	СТА	ьуѕ	950	туг	Val	СТУ	Ата	955	PLO	Val	ASP	теп	ьуs 960
	Arg	λκα	Lou	λcn	Sor		Thr	Sor	cor	Cln		cor	λla	Cor	Cor	
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223	1110	Vul	OIU	980	цуз	DCI	пси	JCI	985	VUI	OLU	Olu	OIU	990	mu	110
	Glu	Asp	Leu		Lvs	Asp	Phe	Leu		Leu	Glu	His	Leu		Cvs	Tvr
225			995	-1-	-1-			1000					1005		- 4 -	- 4 -
	Ser	Phe	Gln	Val	Ala	Lys	Gly			Phe	Leu	Ala			Lys	Cys
	Ser	Phe 1010		Val	Ala	Lys	Gly 1015	Met		Phe	Leu	Ala 1020	Ser		Lys	Cys
226 227		1010)			_	1015	Met 5	Glu			1020	Ser	Arg		
226 227 228		1010 His)			_	1015 Ala	Met 5	Glu			1020 Leu	Ser	Arg		
226 227 228 229	Ile	1010 His) Arg	Asp	Leu	Ala 1030	1015 Ala)	Met Arg	Glu Asn	Ile	Leu 1035	1020 Leu 5	Ser) Ser	Arg Glu	Lys	Asn 1040
226 227 228 229 230 231	Ile 1025 Val	1010 His 5 Val	Arg Lys	Asp Ile	Leu Cys 1045	Ala 103(Asp	1015 Ala) Phe	Met Arg Gly	Glu Asn Leu	Ile Ala 1050	Leu 1035 Arg)	1020 Leu S Asp	Ser) Ser Ile	Arg Glu Tyr	Lys Lys 1055	Asn 1040 Asp
226 227 228 229 230 231 232	Ile 1025	1010 His 5 Val	Arg Lys	Asp Ile Val	Leu Cys 1045 Arg	Ala 103(Asp	1015 Ala) Phe	Met Arg Gly	Glu Asn Leu Ala	Ile Ala 1050 Arg	Leu 1035 Arg)	1020 Leu S Asp	Ser) Ser Ile	Arg Glu Tyr Lys	Lys Lys 1055 Trp	Asn 1040 Asp
226 227 228 229 230 231 232 233	Ile 1025 Val Pro	1010 His Val Val	Arg Lys Tyr	Asp Ile Val	Leu Cys 1045 Arg	Ala 103(Asp Lys	1015 Ala) Phe Gly	Met Arg Gly Asp	Glu Asn Leu Ala 1065	Ile Ala 1050 Arg	Leu 1035 Arg) Leu	1020 Leu S Asp Pro	Ser Ser Ile	Arg Glu Tyr Lys 1070	Lys Lys 1055 Trp	Asn 1040 Asp Met
226 227 228 229 230 231 232 233 234	Ile 1025 Val	1010 His Val Val	Arg Lys Tyr Glu	Asp Ile Val 1060 Thr	Leu Cys 1045 Arg	Ala 103(Asp Lys	1015 Ala) Phe Gly	Met Arg Gly Asp Arg	Asn Leu Ala 1065 Val	Ile Ala 1050 Arg	Leu 1035 Arg) Leu	1020 Leu S Asp Pro	Ser Ser Ile Leu Gln	Arg Glu Tyr Lys 1070 Ser	Lys Lys 1055 Trp	Asn 1040 Asp Met
226 227 228 229 230 231 232 233 234 235	Ile 1025 Val Pro Ala	1010 His Val Asp	Arg Lys Tyr Glu 1075	Asp Ile Val 1060 Thr	Leu Cys 1045 Arg) Ile	Ala 1030 Asp Lys Phe	1015 Ala) Phe Gly Asp	Met Arg Gly Asp Arg 1080	Asn Leu Ala 1065 Val	Ile Ala 1050 Arg Tyr	Leu 1035 Arg) Leu Thr	1020 Leu S Asp Pro	Ser Ser Ile Leu Gln 1085	Arg Glu Tyr Lys 1070 Ser	Lys Lys 1055 Trp) Asp	Asn 1040 Asp Met Val
226 227 228 229 230 231 232 233 234 235 236	Ile 1025 Val Pro	1010 His Val Asp Pro	Arg Lys Tyr Glu 1075	Asp Ile Val 1060 Thr	Leu Cys 1045 Arg) Ile	Ala 1030 Asp Lys Phe	1015 Ala) Phe Gly Asp	Met Arg Gly Asp Arg 1080	Asn Leu Ala 1065 Val	Ile Ala 1050 Arg Tyr	Leu 1035 Arg) Leu Thr	1020 Leu S Asp Pro Ile Ser	Ser Ser Ile Leu Gln 1085	Arg Glu Tyr Lys 1070 Ser	Lys Lys 1055 Trp) Asp	Asn 1040 Asp Met Val
226 227 228 229 230 231 232 233 234 235 236 237	Ile 1025 Val Pro Ala Trp	1010 His Val Asp Pro Ser 1090	Lys Tyr Glu 1075 Phe	Asp Ile Val 1060 Thr Gly	Cys 1045 Arg) Ile Val	Ala 1030 Asp Lys Phe	1015 Ala) Phe Gly Asp Leu 1095	Met Gly Asp Arg 1080 Trp	Glu Asn Leu Ala 1065 Val) Glu	Ile Ala 1050 Arg Tyr	Leu 1035 Arg) Leu Thr	1020 Leu S Asp Pro Ile Ser 1100	Ser Ser Ile Leu Gln 1085 Leu	Glu Tyr Lys 1070 Ser Gly	Lys Lys 1055 Trp) Asp	Asn 1040 Asp Met Val
226 227 228 229 230 231 232 233 234 235 236 237 238	Ile 1025 Val Pro Ala Trp	1010 His Val Asp Pro Ser 1090 Tyr	Lys Tyr Glu 1075 Phe	Asp Ile Val 1060 Thr Gly	Cys 1045 Arg) Ile Val	Ala 1030 Asp Lys Phe Leu	1015 Ala) Phe Gly Asp Leu 1095	Met Gly Asp Arg 1080 Trp	Glu Asn Leu Ala 1065 Val) Glu	Ile Ala 1050 Arg Tyr	Leu 1035 Arg Leu Thr Phe	1020 Leu S Asp Pro Ile Ser 1100 Cys	Ser Ser Ile Leu Gln 1085 Leu	Glu Tyr Lys 1070 Ser Gly	Lys Lys 1055 Trp) Asp	Asn 1040 Asp Met Val Ser
226 227 228 229 230 231 232 233 234 235 236 237 238 239	Ile 1025 Val Pro Ala Trp Pro 1105	1010 His Val Asp Pro Ser 1090 Tyr	Lys Tyr Glu 1075 Phe	Asp Ile Val 1060 Thr Gly Gly	Cys 1045 Arg) Ile Val	Ala 1030 Asp Lys Phe Leu Lys 1110	1015 Ala) Phe Gly Asp Leu 1095 Ile	Met Arg Gly Asp Arg 1080 Trp Asp	Glu Asn Leu Ala 1065 Val Glu Glu	Ile Ala 1050 Arg Tyr Ile Glu	Leu 1035 Arg Leu Thr Phe Phe 1115	1020 Leu S Asp Pro Ile Ser 1100 Cys	Ser Ser Ile Leu Gln 1085 Leu Arg	Arg Glu Tyr Lys 1070 Ser Gly Arg	Lys Lys 1055 Trp) Asp Ala	Asn 1040 Asp Met Val Ser Lys 1120
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240	Ile 1025 Val Pro Ala Trp	1010 His Val Asp Pro Ser 1090 Tyr	Lys Tyr Glu 1075 Phe	Asp Ile Val 1060 Thr Gly Gly	Leu Cys 1045 Arg) Ile Val Val Met	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg	1015 Ala) Phe Gly Asp Leu 1095 Ile	Met Arg Gly Asp Arg 1080 Trp Asp	Glu Asn Leu Ala 1065 Val Glu Glu	Ile Ala 1050 Arg Tyr Ile Glu	Leu 1035 Arg) Leu Thr Phe Phe 1115 Thr	1020 Leu S Asp Pro Ile Ser 1100 Cys	Ser Ser Ile Leu Gln 1085 Leu Arg	Arg Glu Tyr Lys 1070 Ser Gly Arg	Lys 1055 Trp) Asp Ala Leu Met	Asn 1040 Asp 5 Met Val Ser Lys 1120 Tyr
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241	Ile 1025 Val Pro Ala Trp Pro 1105 Glu	1010 His Val Asp Pro Ser 1090 Tyr Gly	Lys Tyr Glu 1075 Phe Pro	Asp Ile Val 1060 Thr Gly Gly Arg	Leu Cys 1045 Arg Ile Val Val Met 1125	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala	Met Arg Gly Asp Arg 1080 Trp Asp	Asn Leu Ala 1065 Val Glu Glu Asp	Ala 1050 Arg Tyr Ile Glu Tyr 1130	Leu 1035 Arg) Leu Thr Phe 1115 Thr	1020 Leu Asp Pro Ile Ser 1100 Cys	Ser Ser Ile Leu Gln 1085 Leu Arg	Arg Glu Tyr Lys 1070 Ser Gly Arg Glu	Lys Lys 1055 Trp Asp Ala Leu Met 1135	Asn 1040 Asp Met Val Ser Lys 1120 Tyr
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242	Ile 1025 Val Pro Ala Trp Pro 1105	1010 His Val Asp Pro Ser 1090 Tyr Gly	Lys Tyr Glu 1075 Phe Pro	Asp Ile Val 1060 Thr Gly Gly Arg Leu	Cys 1045 Arg Ile Val Val Met 1125 Asp	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala	Met Arg Gly Asp Arg 1080 Trp Asp	Asn Leu Ala 1065 Val Glu Glu Asp Gly	Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu	Leu 1035 Arg) Leu Thr Phe 1115 Thr	1020 Leu Asp Pro Ile Ser 1100 Cys	Ser Ser Ile Leu Gln 1085 Leu Arg	Glu Tyr Lys 1070 Ser Gly Arg Glu Arg	Lys 1055 Trp Asp Ala Leu Met 1135 Pro	Asn 1040 Asp Met Val Ser Lys 1120 Tyr
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243	Ile 1025 Val Pro Ala Trp Pro 1105 Glu	1010 His Val Asp Pro Ser 1090 Tyr Gly	Arg Lys Tyr Glu 1075 Phe Pro Thr	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140	Cys 1045 Arg Ile Val Val Met 1125 Asp	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala	Met Arg Gly Asp 1080 Trp Asp Pro	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145	Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln	Arg Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150	Lys 1055 Trp Asp Ala Leu Met 1135 Pro	Asn 1040 Asp 5 Met Val Ser Lys 1120 Tyr 5
226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243	Ile 1025 Val Pro Ala Trp Pro 1105 Glu	1010 His Val Asp Pro Ser 1090 Tyr Gly	Arg Lys Tyr Glu 1075 Phe Pro Thr	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140 Leu	Cys 1045 Arg Ile Val Val Met 1125 Asp	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala	Met Arg Gly Asp Arg 1080 Trp Asp Pro His	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145 Gly	Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln	Arg Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150 Ala	Lys 1055 Trp Asp Ala Leu Met 1135 Pro	Asn 1040 Asp 5 Met Val Ser Lys 1120 Tyr 5
226 227 228 229 230 231 232 233 234 235 236 237 238 240 241 242 243 244 245	Ile 1025 Val Pro Ala Trp Pro 1105 Glu Gln Phe	1010 His Val Asp Pro Ser 1090 Tyr Gly Thr Ser	Lys Tyr Glu 1075 Phe Pro Thr Met Glu 1155	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140 Leu	Cys 1045 Arg Ile Val Val Met 1125 Asp	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg Cys	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala Trp His	Met Arg Gly Asp Arg 1080 Trp Asp Pro His Leu 1160	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145 Gly	Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu Asn	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser Leu	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln Gln 1165	Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150 Ala	Lys 1055 Trp Asp Ala Leu Met 1135 Pro Asn	Asn 1040 Asp 5 Met Val Ser Lys 1120 Tyr 5 Thr
226 227 228 229 230 231 232 233 234 235 236 237 238 240 241 242 243 244 245	Ile 1025 Val Pro Ala Trp Pro 1105 Glu	1010 His Val Asp Pro Ser 1090 Tyr Gly Thr Ser	Lys Lys Tyr Glu 1075 Phe Pro Thr Met Glu 1155 Asp	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140 Leu	Cys 1045 Arg Ile Val Val Met 1125 Asp	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg Cys	1015 Ala) Phe Gly Asp Leu 1095 Ile) Ala Trp His	Met Arg Gly Asp Arg 1080 Trp Asp Pro His Leu 1160 Ile	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145 Gly	Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu Asn	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser Leu	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln Gln 1165 Ser	Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150 Ala	Lys 1055 Trp Asp Ala Leu Met 1135 Pro Asn	Asn 1040 Asp 5 Met Val Ser Lys 1120 Tyr 5 Thr
226 227 228 239 230 231 232 233 234 235 236 237 241 242 243 244 245 246 247	Ile 1025 Val Pro Ala Trp Pro 1105 Glu Gln Phe	1010 His Val Asp Pro Ser 1090 Tyr Gly Thr Ser Gln 1170	Lys Lys Tyr Glu 1075 Phe Pro Thr Met Glu 1155 Asp	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140 Leu Gly	Cys 1045 Arg Ile Val Val Met 1125 Asp Val Lys	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg Cys Glu Asp	1015 Ala Phe Gly Asp Leu 1095 Ile Ala Trp His	Met Arg Gly Asp Arg 1080 Trp Asp Pro His Leu 1160 Ile	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145 Gly Val	Ile Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu Asn Leu	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro Leu Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser Leu Ile 1180	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln 1165 Ser	Arg Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150 Ala Glu	Lys 1055 Trp) Asp Ala Leu Met 1135 Pro) Asn	Asn 1040 Asp Met Val Ser Lys 1120 Tyr Thr Ala
226 227 228 230 231 232 233 234 235 236 237 248 241 242 243 244 245 246 247 248	Ile 1025 Val Pro Ala Trp Pro 1105 Glu Gln Phe	1010 His Val Asp Pro Ser 1090 Tyr Gly Thr Ser Gln 1170 Met	Lys Lys Tyr Glu 1075 Phe Pro Thr Met Glu 1155 Asp	Asp Ile Val 1060 Thr Gly Gly Arg Leu 1140 Leu Gly	Cys 1045 Arg Ile Val Val Met 1125 Asp Val Lys	Ala 1030 Asp Lys Phe Leu Lys 1110 Arg Cys Glu Asp	1015 Ala Phe Gly Asp Leu 1095 Ile Ala Trp His Tyr 1175 Gly	Met Arg Gly Asp Arg 1080 Trp Asp Pro His Leu 1160 Ile	Asn Leu Ala 1065 Val Glu Glu Asp Gly 1145 Gly Val	Ile Ala 1050 Arg Tyr Ile Glu Tyr 1130 Glu Asn Leu	Leu 1035 Arg Leu Thr Phe 1115 Thr Pro Leu Pro	1020 Leu Asp Pro Ile Ser 1100 Cys Thr Ser Leu Ile 1180 Thr	Ser Ser Ile Leu Gln 1085 Leu Arg Pro Gln 1165 Ser	Arg Glu Tyr Lys 1070 Ser Gly Arg Glu Arg 1150 Ala Glu	Lys 1055 Trp) Asp Ala Leu Met 1135 Pro) Asn	Asn 1040 Asp Met Val Ser Lys 1120 Tyr Thr Ala

VERIFICATION SUMMARYPATENT APPLICATION: US/10/090,183

DATE: 03/20/2002
TIME: 11:34:51

Input Set : A:\TSRI8290SEQ.TXT

Output Set: N:\CRF3\03202002\J090183.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date